

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A cellular system in a code division multiple access mode comprising:

a mobile station for measuring reception quality of pilot signals transmitted by a plurality of base stations and setting up radio links; and

a base station control unit for assigning unique information ~~of~~to the base stations thereunder and determining sequence information on the assignment; ~~and~~

wherein each of said base stations for is operable to -checking a code word transmitted from the mobile station having the radio link set up and associated with ~~setsaid~~said base stations unique information against a table created based on ~~the~~ information notified by the base station control unit and ~~determining~~ a transmitting base station, wherein:

said base station control unit has means for notifying ~~said~~each base station of said base stations, in advance, of said unique information and said sequence information; and

eachsaid of said base stations has means for judging whether or not each of said~~the~~ base stations itself is specified as the transmitting base station by creating in advance code word candidates that may be transmitted by the mobile station based on said unique information and said sequence information and checking the code word received from the mobile station against said code word candidates.

2. (currently amended): A cellular system in a code division multiple access mode comprising:

a mobile station for measuring reception quality of pilot signals transmitted by a plurality of base stations and setting up radio links; and

a base station control unit for assigning code words and base station identifiers that are unique information ~~of~~ to the base stations thereunder and determining sequence information on the base station identifiers; ~~and~~

wherein each of said base stations ~~for~~ is operable to checking the code word transmitted from the mobile station having the radio link set up against a table created based on correspondence between said assigned code words and said assigned base station identifiers and said sequence information and ~~determine~~ ing a transmitting base station, wherein:

said base station control unit has means for notifying ~~each~~ said base station of said base stations, in advance, of said assigned code words and said assigned base station identifiers and said sequence information; and

~~said~~ each base station has means for judging whether or not ~~the~~ each of said base stations itself is specified as the transmitting base station by creating in advance code word candidates that may be transmitted by the mobile station based on said assigned base station identifiers and said sequence information and checking the code word received from the mobile station against said code word candidates.

3. (currently amended): The cellular system according to claim 1, wherein ~~the~~a maximum number of the base stations on which the mobile station may set up links is used as said sequence information.

4. (currently amended): The cellular system according to claim 1, wherein a set of the base station identifiers that may be used according to ~~the~~a maximum number of the base stations on which the mobile station may set up links is used as said sequence information.

5. (original): The cellular system according to claim 1, wherein the number of the base stations on which the mobile station currently has links set up is used as said sequence information.

6. (original): The cellular system according to claim 1, wherein a set of the base station identifiers used by the base stations currently having links set up is used as said sequence information.

7. (currently amended): A cellular system in a code division multiple access mode comprising:

a mobile station for measuring reception quality of pilot signals transmitted by a plurality of base stations and setting up radio links; and

a base station control unit for assigning code words and base station identifiers that are unique information of the base stations thereunder and determining a predetermined base station number threshold; ~~and~~

wherein each of said base stations ~~for~~is operable to checking the code word transmitted from the mobile station having the radio link set up against a table created based on correspondence between said assigned code words and said assigned base station identifiers and said base station number threshold and ~~determine~~ing a transmitting base station, wherein:

said base station control unit has means for, in the case where the mobile station sets up links with the base stations equal to or exceeding said base station number threshold, duplicatively assigning ~~at the same~~ base station identifier to at least two of said base stations and notifying said base stations, in advance, of said duplicatively assigned base station identifier, said assigned code words and said base station number threshold; and

each of said base stations has means for, in the case where the mobile station sets up links with the base stations equal to or exceeding said base station number threshold, judging whether or not ~~the~~each of said base stations itself is specified as the transmitting base station by creating in advance code word candidates that may be transmitted by the mobile station based on said duplicatively assigned base station identifier and said base station number threshold and checking the code word received from the mobile station against said code word candidates

8. (currently amended): A cellular system using a code division multiple access mode and ~~including~~comprising a mobile station, base stations having radio links set up with said

mobile station and a base station control unit assigning base station identifiers to said base stations in a predetermined order, wherein:

said base station control unit has first means for notifying each base station of ~~the~~a maximum base station number that is ~~the~~a maximum number of the base stations which may have the radio links set up with said mobile station; and

said mobile station has second means for measuring reception quality of pilot signals transmitted by said base stations, determining one transmitting base station or a plurality of transmitting base stations out of said base stations according to measuring results thereof, and transmitting to each base station a code word indicating a combination of the base station identifiers of said transmitting base stations; ~~and~~

wherein each of said base stations has third means for judging whether or not ~~the~~each of said base stations is specified as the transmitting base station by determining judgement candidates that are the code words which may be transmitted by said mobile station based on said predetermined order and said maximum base station number and checking the code word received from said mobile station against said judgement candidates.

9. (currently amended): A~~The~~ cellular system ~~according to claim 8,~~ using a code division multiple access mode and comprising a mobile station, base stations having radio links set up with said mobile station and a base station control unit assigning base station identifiers to said base stations in a predetermined order, wherein:

said base station control unit~~said~~ has first means for determining~~ing~~ the base station identifiers that may be used according to said maximum base station number and for notifying~~ies~~ each base station of the determined base station identifiers ~~instead of said maximum base station number;~~ and

said mobile station has second means for measuring reception quality of pilot signals transmitted by said base stations, determining one transmitting base station or a plurality of transmitting base stations out of said base stations according to measuring results thereof, and transmitting to each base station a code word indicating a combination of the base station identifiers of said transmitting base stations; and

each of said base stations has third means for judging whether or not each of said base stations is specified as the transmitting base station by determining judgement candidates that are the code words which may be transmitted by said mobile station ~~determines said judgement candidates based on the determined base station identifiers and checking the code word received from said mobile station against said judgment candidates instead of said order and said maximum base station number.~~

10. A~~The~~ cellular system using a code division multiple access mode and comprising a mobile station, base stations having radio links set up with said mobile station and a base station control unit assigning base station identifiers to said base stations in a predetermined order, ~~according to claim 8,~~ wherein:

said base station control unit has first means for notifyingies each base station of ~~the~~a link set-up base station number that is the number of said base stations ~~instead of said maximum base station number~~; and

said mobile station has second means for measuring reception quality of pilot signals transmitted by said base stations, determining one transmitting base station or a plurality of transmitting base stations out of said base stations according to measuring results thereof, and transmitting to each base station a code word indicating a combination of the base station identifiers of said transmitting base stations; and

each of said base stations has third means for judging whether or not each of said base stations is specified as the transmitting base station by determining judgement candidates that are the code words which may be transmitted by said mobile station based on said predetermined order~~determines said judgement candidates based on said order~~ and said link set-up base station number ~~instead of said order and said maximum base station number~~.

11. (currently amended): A~~The~~ cellular system using a code division multiple access mode and comprising a mobile station, base stations having radio links set up with said mobile station and a base station control unit assigning base station identifiers to said base stations in a predetermined order, ~~according to claim 8~~, wherein:

said base station control unit has first means for notifyingies each base station of the base station identifiers assigned to said base stations ~~instead of said maximum base station number~~; and

said mobile station has second means for measuring reception quality of pilot signals transmitted by said base stations, determining one transmitting base station or a plurality of transmitting base stations out of said base stations according to measuring results thereof, and transmitting to each base station a code word indicating a combination of the base station identifiers of said transmitting base stations; and

each of said base stations has third means for judging whether or not each of said base stations is specified as the transmitting base station by determining~~determines said judgement candidates that are the code words transmitted by said mobile station based on the base station identifiers assigned to said base stations instead of said order and said maximum base station number.~~

12. (currently amended): A cellular system using a code division multiple access mode and ~~comprising~~including a mobile station, base stations having radio links set up with said mobile station and a base station control unit assigning base station identifiers to said base stations, wherein:

said base station control unit has means for, in the case where the number of said base stations is a predetermined base station number threshold or more, duplicatively assigning the base station identifier that is already used;

said mobile station has means for measuring reception quality of pilot signals transmitted by said base stations, determining one transmitting base station or a plurality of transmitting base stations out of said base stations according to measuring results thereof, and transmitting to each

base station a code word indicating a combination of the base station identifiers of said transmitting base stations; and

each of said base stations has means for judging whether or not ~~the~~said each of said base stations is specified as the transmitting base station by checking the code word received from said mobile station against code words indicating combinations of said base station identifiers of said base stations.

13. (currently amended): A base station specification method in a cellular system using a code division multiple access mode ~~and having~~, the method comprising:

~~a mobile station for~~ measuring reception quality of pilot signals transmitted by a plurality of base stations and setting up radio links,

~~a base station control unit for~~ assigning unique information of the base stations thereunder and determining sequence information on the assignment, ~~and~~

notifying each base station of said unique information and said sequence information; and

~~base stations for~~ checking a code word transmitted from ~~the~~a mobile station having the radio links set up and associated with said~~set~~ base stations unique information against a table created based on the unique information and sequence information notified by the base station control unit and determining a transmitting base station, ~~wherein:~~

~~said base station control unit has a step for notifying said base station, in advance, of said unique information and said sequence information; and~~

~~said base station has a step for judging whether or not the base station itself~~each of said
base stations is specified as the transmitting base station by creating in advance code word
candidates that may be transmitted by the mobile station based on said unique information and
said sequence information and checking the code word received from the mobile station against
said code word candidates.

14. (currently amended): A base station specification method in a cellular system
using a code division multiple access mode, the method comprising: ~~and having~~
~~a mobile station for~~ measuring reception quality of pilot signals transmitted by a plurality
of base stations and setting up radio links,
~~a base station control unit for~~ assigning code words and base station identifiers that are
unique information of the base stations thereunder and determining sequence information on the
base station identifiers, ~~and~~
notifying each base station, in advance, of said assigned code words and said assigned
base station identifiers and said sequence information;
~~base stations for~~ checking the code word transmitted from ~~at~~ the mobile station having the
radio link set up against a table created based on correspondence between said assigned code
words and said assigned base station identifiers and said sequence information and determining a
transmitting base station, ~~wherein:~~

~~said base station control unit has a step for notifying said base station, in advance, of said assigned code words and said assigned base station identifiers and said sequence information;~~
and

~~said base station has a step for judging whether or not said each~~the base station itself is specified as the transmitting base station by creating in advance code word candidates that may be transmitted by the mobile station based on said assigned base station identifiers and said sequence information and checking the code word received from the mobile station against said code word candidates.

15. (original): The base station specification method according to claim 13, wherein ~~the~~a maximum number of the base stations on which the mobile station may set up links is used as said sequence information.

16. (currently amended): The base station specification method according to claim 13, wherein a set of ~~the~~ base station identifiers that may be used according to ~~the~~a maximum number of the base stations on which the mobile station may set up links is used as said sequence information.

17. (currently amended): The base station specification method according to claim 13, wherein ~~the~~a number of the base stations on which the mobile station currently has links set up is used as said sequence information.

18. (original): The base station specification method according to claim 13, wherein a set of the base station identifiers used by the base stations currently having links set up is used as said sequence information.

19. (currently amended): A base station specification method in a cellular system using a code division multiple access mode, the method comprising: and having
~~a mobile station for~~ measuring reception quality of pilot signals transmitted by a plurality of base stations and setting up radio links,
~~a base station control unit for~~ assigning code words and base station identifiers that are unique information of the base stations thereunder and determining a predetermined base station number threshold, and
~~base stations for~~ checking the code word transmitted from the mobile station having the radio link set up against a table created based on correspondence between said assigned code words and said assigned base station identifiers and said base station number threshold and determining a transmitting base station, wherein:

~~said base station control unit has a step for, in the case where the mobile station sets up links with the base stations equal to or exceeding said base station number threshold,~~
duplicatively assigning the same base station identifier to at least two of said base stations and notifying said base stations, in advance, of said duplicatively assigned base station identifier, said assigned code words and said base station number threshold; and

~~said base station has a step for, in the case where the mobile station sets up links with the base stations equal to or exceeding said base station number threshold, judging whether or not~~
~~the~~each of said base stations itself is specified as the transmitting base station by creating in advance code word candidates that may be transmitted by the mobile station based on said duplicatively assigned base station identifier and said base station number threshold and checking the code word received from the mobile station against said code word candidates.

20. (currently amended): A base station specification method in a cellular system using a code division multiple access mode and including a mobile station, base stations having radio links set up with said mobile station and a base station control unit assigning base station identifiers to said base stations in predetermined order, the method comprising~~wherein~~:

~~said base station control unit has a first step for notifying each base station~~ of said base stations of the maximum base station number that is the maximum number of the base stations which may have the radio links set up with said mobile station;

~~said mobile station has a second step for~~ measuring reception quality of pilot signals transmitted by said base stations, determining one transmitting base station or a plurality of transmitting base stations out of said base stations according to measuring results thereof, and transmitting to each base station a code word indicating a combination of the base station identifiers of said transmitting base stations; and

~~each of said base stations has a third step for~~ judging whether or not the base station is specified as the transmitting base station by determining judgement candidates that are the code

words which may be transmitted by said mobile station based on said order and said maximum base station number and checking the code word received from said mobile station against said judgement candidates.

21. (currently amended): A~~The~~ base station specification method in a cellular system according to claim 20, wherein using a code division multiple access mode and including a mobile station, base stations having radio links set up with said mobile station and a base station control unit assigning base station identifiers to said base stations in predetermined order, the method comprising:

said first step determininges the base station identifiers that may be used according to ~~said~~a maximum base station number and notifyingies each base station of the determined base station identifiers ~~instead of said maximum base station number; and~~

measuring reception quality of pilot signals transmitted by said base stations, determining one transmitting base station or a plurality of transmitting base stations out of said base stations according to measuring results thereof, and transmitting to each base station a code word indicating a combination of the base station identifiers of said transmitting base stations; and

judging whether or not said each of said base station is specified as the transmitting base station by determining judgment candidates that are the code words which may be transmitted by said mobile station based on the determined base station identifiers and checking the code word received from said mobile station against said judgement candidates~~said third step determines~~

~~said judgement candidates based on the determined base station identifiers instead of said order and said maximum base station number.~~

22. (currently amended): A~~The~~ base station specification method in a cellular system using a code division multiple access mode and including a mobile station, base stations having radio links set up with said mobile station and a base station control unit assigning base station identifiers to said base stations in predetermined order, the method comprising~~according to claim 20, wherein:~~

~~said first step notifying~~ies each base station of said base stations of the link set-up base station number that is the number of said base stations instead of said maximum base station number; and

measuring reception quality of pilot signals transmitted by said base stations, determining one transmitting base station or a plurality of transmitting base stations out of said base stations according to measuring results thereof, and transmitting to each base station a code word indicating a combination of the base station identifiers of said transmitting base stations; and

~~said third step determines judging~~ whether or not the base station is specified as the transmitting base station by determining judgment candidates that are the code words which may be transmitted by said mobile station ~~said judgement candidates based on said order and said link set-up base station number and checking the code word received from said mobile station against said judgement candidates instead of said order and said maximum base station number.~~

23. (currently amended): A~~The~~ base station specification method in a cellular system
using a code division multiple access mode and including a mobile station, base stations having
radio links set up with said mobile station and a base station control unit assigning base station
identifiers to said base stations in predetermined order, the method comprising~~according to claim~~
~~20, wherein:~~

~~said first step notifying~~ each base station of said base stations of the base station
identifiers assigned to said base stations which may have radio links set up with said mobile
station~~instead of said maximum base station number; and~~
measuring reception quality of pilot signals transmitted by said base stations,
determining one transmitting base station or a plurality of transmitting base stations out of said
base stations according to measuring results thereof, and transmitting to each base station a code
word indicating a combination of the base station identifiers of said transmitting base stations;
and

~~said third step determines said judgement candidates judging whether or not the base~~
station is specified as the transmitting base station by determining judgment candidates that are
the code words which may be transmitted by said mobile station based on the base station
identifiers assigned to said base stations and checking the code word received from said mobile
station against said judgement candidates~~instead of said order and said maximum base station~~
~~number.~~

24. (currently amended): A base station specification method in a cellular system using a code division multiple access mode and including a mobile station, base stations having radio links set up with said mobile station and a base station control unit assigning base station identifiers to said base stations, the method comprising wherein:

~~said base station control unit has a step for, in the case where the number of said base stations is a predetermined base station number threshold or more, duplicatively assigning the~~
base station identifier that is already used;

~~said mobile station has a step for~~ measuring reception quality of pilot signals transmitted by said base stations, determining one transmitting base station or a plurality of transmitting base stations out of said base stations according to measuring results thereof, and transmitting to each base station of said base stations a code word indicating a combination of the base station identifiers of said transmitting base stations; and

~~each of said base stations has a step for~~ judging whether or not the said each of said base stations is specified as the transmitting base station by checking the code word received from said mobile station against code words indicating combinations of said base station identifiers of said base stations.